

NIH POLICY MANUAL

54510 - REFERRAL AND INITIAL REVIEW OF NIH GRANT AND COOPERATIVE AGREEMENT APPLICATIONS

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A. Purpose

This chapter explains the policies, procedures, and responsibilities for the referral of grant and cooperative agreement applications, hereafter both referred to as grant applications, and their review by initial review groups (IRGs). Manual Chapter 4510 supersedes Manual Chapter 4505, dated March 12, 1971, and 4506, dated October 17, 1971. It implements the pertinent parts of PHS Grants Administration Manual, Chapter 1-507, and also incorporates those pertinent recommendations of the NIH Grants Peer Review Study Team, 1978, with which the Director, NIH, concurred.

B. Applicability

The policy stated herein is applicable to competing research project, program project, and center grant and cooperative agreement applications, institutional and individual National Research Service Award applications, and academic, clinical investigator, and career development award applications.

C. Background

The peer review of grant and cooperative agreement applications for scientific and technical merit has been legislatively mandated under Section 475 of the PHS Act. Section 475 states that peer review groups shall consist of "individuals who by virtue of their training or experience are eminently qualified to perform the review functions of the group." It further specifies that not more than one-fourth of the members of any peer review group established under such regulations shall be Federal employees.

D. References

1. Code of Federal Regulations, Title 42, Part 52, Grants for Research Projects.
2. Code of Federal Regulations, Title 42, Part 66, National Research Service Awards.
3. Code of Federal Regulations, Title 45, Part 76, Debarment and Suspension.
4. Federal Advisory Committee Act, 5 USC, Appendix 1, P.L. 92-463.
5. PHS Grants Administration Manual, Chapter 1-507, Objective Review of Grant

Applications.

6. [NIH Manual Chapter 1805](#), Use of Advisors in Program and Project Review and Management.
7. NIH Manual Chapter 2300-735-2, Procedures for Avoiding Conflict of Interest for Public Advisory Committee Members.
8. [NIH Manual Chapter 4104](#), NIH Research Grants to Foreign Institutions and International Organizations.
9. [NIH Manual 4107](#), Review of Applications and Award of Grants Involving Human Subjects.
10. NIH Manual Chapter 4108, Grant and Cooperative Agreement Applications Involving the Biological Effects of Ionizing Radiation
11. [NIH Manual Chapter 6380-2](#), Responsibility for Care and Use of Animals
12. [NIH Manual Chapter 4511](#), Project Site Visits on Grant and Cooperative Agreement Applications
13. [NIH Manual Chapter 4512](#), Summary Statements
14. [NIH Manual Chapter 4513](#), Review of NIH Programs and Grant and Cooperative Agreement Applications by National Advisory Councils and Boards.
15. [NIH Manual Chapter 4514](#), Role of Staff at Advisory Committee Meetings and Exchange of Information Between Initial Review Groups and Bureaus, Institutes or Divisions.
16. [NIH Manual Chapter 4515](#), Guidelines for Dually Assigned Grant Applications.
17. [NIH Manual Chapter 4516](#), Principal Investigator Generated Communications and Appeals to Referral and Peer Review of NIH Grant and Cooperative Agreement Applications (In preparation)
18. Handbook for Executive Secretaries, prepared by the Scientific Review Branch, Division of Research Grants (DRG).
19. Handbook for Referral Officers, prepared by Referral Branch, DRG.

E. Policy

Grant applications are reviewed in accordance with the NIH peer review system, which is based on two sequential levels of review referred to as the "dual review

system." Both levels are required by statute. The first level of review is carried out by an IRG composed of primarily non-Federal scientists in relevant scientific disciplines and current research areas. The second level of review is performed by a National Advisory Council or Board, hereafter referred to as a "Council," which is advisory to each Bureau, Institute, or Division (BID), and which is composed of both scientific and lay members who are noted for their expertise, interest, or activity in matters related to health and disease. With the exception of individual fellowship applications and applications recommended at direct costs not exceeding \$35,000 annually for the National Cancer Institute and the National Heart, Lung, and Blood Institute, grants may not be awarded without a recommendation for approval by a Council.

F. Definitions

1. ***Initial Review Groups (IRGs)*** - Groups composed of primarily non-Federal scientific experts who conduct the scientific and technical merit review of grant applications. The various kinds of IRGs are defined as follows:

a. ***Study Sections*** - IRGs managed by the Division of Research Grants (DRG). Study Sections consist of approximately 12-20 members each and have as their primary function the review and evaluation for scientific and technical merit of grant applications.

b. ***Special Review Groups*** - Ad hoc review groups which evaluate applications from members of IRGs; applications in response to requests for applications (RFAs); or applications requiring combinations of expertise not available in a regularly constituted IRG. These groups are established to perform a single, specific, short-term task, after which they are disbanded.

c. ***Other IRGs*** - Groups located in the BIDs to perform the scientific and technical merit review for center and program project applications as well as for other types of specialized research and research training grant applications.

2. ***Council*** - A National Advisory Council or Board, composed of both scientists and lay members, which has a broader responsibility than IRGs. As authorities knowledgeable in relevant BID programmatic areas and aware of the roles of the diverse institutions in biomedical research, they must be especially mindful of the health needs of the American people. Council members perform the final advisory review of grant applications and also offer advice and make recommendations on matters of significance to the policies, missions, and goals of the BID they advise.

3. ***Rebuttal Letter*** - A letter and any associated documents from a principal investigator containing information challenging the findings and recommendations of a review group as recorded in a summary statement, project site visit report, or

other related documents. A rebuttal may indicate disagreement with review procedures, details of review, IRG or BID assignment, or with composition of the IRG. A rebuttal letter may request re-review or other special action on the application. (See [Manual Chapter 4516](#))

4. ***Communication*** - A written request for (a) reassignment of an application to another IRG or BID, (b) amendment of the record(s), or (c) reconsideration (rebuttal) of the findings and recommendations of a review group or subsequent BID review action.

G. Responsibility

1. General

The review responsibilities of chartered DRG and BID initial review groups are defined by the charter authorizing each group's formation. The establishment, renewal, and modification of IRGs are governed by the Federal Advisory Committee Act.

In general, members of one IRG or Council are not asked by NIH staff to undertake additional review activities assigned to another IRG or Council, unless absolutely essential. In any case, before contacting the prospective reviewers, the NIH staff member must contact the Executive Secretary or the appropriate Council Secretary of the reviewer's IRG or Council to ensure that the member does not have overriding commitments to his or her own IRG or Council at that time.

2. The Division of Research Grants (DRG)

a. Receipt and Assignment

DRG is the central receipt locale for all research and research training grant applications to the NIH and certain other PHS agencies. Waiver of an established receipt date for an application may be authorized only by the Director, DRG, or his or her designee.

Applications that are relevant to the NIH mission receive two types of assignments: 1) to an IRG for initial scientific and technical review; and 2) to the BID whose program interests correspond most closely to the aims and objectives of the application for funding purposes. Written guidelines for assignment to IRGs, and the designated criteria for BID assignments are described in the DRG Handbook for Referral Officers which outlines the scientific program areas and interests of each Public Health Service awarding organization. If the subject matter overlaps the interests of two BIDs, a dual assignment may be made.

Although application assignments are usually made to regularly constituted IRGs, special review groups may be organized on an ad hoc basis. Such special review groups review applications that are:

- outside the scientific competence of an existing IRG;
- from members of a regularly constituted IRG, their families, partners, or close professional associates (To avoid conflict of interest, these applications are reviewed by ad hoc groups or other IRGs.); or
- in response to requests for applications (RFAs).

Also, in cases where because of their unusual content and relationship to a BID's program interest it is determined that an application can be more effectively reviewed by a group other than the regularly constituted DRG IRG, the DRG may assign review to a BID IRG. Examples of such applications include clinical trial applications, applications in which an essential planning phase must precede the actual research phase, and specialized types of multifaceted applications, such as program projects and centers.

Authority for these assignments rests with the Director, DRG, or with the Director's designee, the Associate Director for Scientific Review, DRG. Assignment decisions are delegated to the Chief, Referral Branch, DRG, and review decisions to the Chief, Scientific Review Branch, DRG.

Any differences of opinion between DRG and a BID over the assignment and plan for the review of an application(s) will be resolved by the Associate Director for Extramural Research and Training (ADERT), Office of the Director, NIH.

Applications received from persons who have been debarred or suspended under 45 CFR Part 76, or which propose debarred or suspended individuals to serve as principal investigators, program directors, or in any other capacity, shall not be considered and shall be promptly returned to the applicant with a statement of the reasons therefor.

b. Review Responsibility

Continuing evaluation of the soundness and objectivity of the entire NIH initial review process is the responsibility of the ADERT, and is shared with the Director, DRG. This responsibility includes the right to send representatives to IRG meetings and site visits.

With certain exceptions as assigned by DRG, DRG has the

responsibility for the initial review of applications in the R, F, and K series.

3. *Bureau, Institute, or Division (BID)*

When an application is assigned for review by a BID, that organization accepts full responsibility for ensuring quality and objectivity in the evaluation; for arranging all aspects of the review and its documentation; and for assuring that conflict of interest policies are followed.

If the BID plans to form an ad hoc review group, or when any review is contemplated other than that designated by DRG, the Director, DRG, or designee must be notified in advance of the details and the plans for review. Proposed changes in established methods of review are to be discussed with DRG in advance of the review.

H. Conflict of Interest

When an IRG member or the member's spouse, parent, child, partner, or close professional associate is named in a grant application as the principal investigator, or as an investigator who is currently, or expected to be, responsible for conducting a project, the IRG on which the investigator is a member may not review the application. Instead, the Referral Office, DRG, or the BID (in the case of BID review) arranges to have the application evaluated by another IRG.

Any reviewer must leave the meeting room when applications submitted by his or her own organization is being discussed. In the case of State higher education or other systems with multiple campuses geographically separated, the term "own organization" is intended to mean the entire system where the member or reviewer is an employee, consultant, officer, director, or trustee, or has a financial interest.

In addition, all reviewers should be urged to avoid any actions that might give the appearance that a conflict of interest exists. For example, a consultant should not participate in the deliberations and actions on any application from or involving a recent student, a recent teacher, or a close personal friend. Also, reviewers should not participate in the review of an application from a scientist with whom the reviewer has had long-standing differences which could reasonably be viewed as affecting objectivity.

Executive Secretaries are expected to guide consultants properly so that conflict of interest situations are avoided.

Operating procedures and measures that are to be taken by the Executive Secretary and the IRG members in advance of, during, and after IRG meetings to assure absence of conflict of interest are found in NIH Manual Chapters 2300-735-2 and

1805, and also in the DRG Handbook for Executive Secretaries.

I. Confidentiality

All material related to the review of grant applications, such as applications, site visit reports, discussions at meetings, IRG summary statements, and staff recommendations are confidential. IRG members shall leave all written material in the conference room following the completion of the review meeting. Under no circumstances should reviewers advise either investigators or their organization of recommendations or discuss the review proceedings with them, or with anyone outside the IRG or NIH. Breaches of confidentiality may lead the applicant investigator to unwise actions on the basis of premature or erroneous information; They represent a violation of the privileged nature of the proceedings and an invasion of the privacy of fellow consultants serving on review committee and site visit teams wherein confidential opinions are expressed. Breaches of confidentiality could deter qualified consultants from serving on review committees and inhibit those who do from engaging in free and full discussion of the applications.

Inquiries from applicants about pending applications should be referred to the appropriate NIH staff.

J. Implementation

1. Assignment

After an application has been assigned to an IRG for scientific and technical merit review and to a BID for consideration for funding, the Executive Secretary of the IRG will officially notify the applicant investigator about the assignment. Although an applicant investigator may request assignment to a specific IRG or BID, decisions about such requests remain the responsibility of NIH.

2. Conduct of Initial Review by Chartered, Ad Hoc, and Special Review Groups

a. *Procedures Prior to the IRG Meeting:* Preparation of Reviewers' Preliminary Written Comments

The Executive Secretary of the IRG sends copies of applications assigned to that IRG for review to IRG members well in advance of the scheduled meeting. Applications from a member's institution will not be provided to that member. The Executive Secretary determines whether additional expertise is needed to adequately review all the applications assigned to the IRG. If so, the Executive Secretary solicits outside written opinions for use at the review meeting and/or invites special (ad hoc) reviewers to review certain applications and attend a particular meeting. The Executive Secretary assigns each application to two or more IRG members to prepare detailed

preliminary comments prior to the meeting. These written evaluations are prepared according to specific guidelines that are sent by the Executive Secretary to the reviewers along with their assigned applications.

In addition to preparing written evaluation of applications assigned to them, reviewers are expected to read all other applications on the agenda (except those which present a conflict), and to be ready to contribute to discussions at the meeting. The preliminary evaluation statements, together with the record of the discussion of the application at the IRG meeting, are used by the Executive Secretary to prepare the summary statement reflecting the collective view of the IRG.

b. Procedures During the IRG Meeting

(1) Quorum

Unless otherwise established in the chapter of the IRG, a quorum consists of a majority of the IRG's authorized membership, including ex officio members. Ad hoc reviewers are not included as part of the quorum. A quorum of the IRG must be present for the transaction of business.

(2) Review Criteria

The IRG evaluates the merit of each grant application on the meeting agenda according to specific criteria. The principal criteria for the initial review of research project grant applications, as required in the PHS Scientific Peer Review Regulations, include:

- scientific, technical, or medical significance and originality of the proposed research;
- appropriateness and adequacy of the experimental approach and methodology to be used;
- qualifications of the principal investigator and staff in the area of the research;
- the principal investigator's experience and record in previous research activity;
- reasonable availability of resources;
- reasonableness and adequacy of justification for the proposed budget and duration of support; and
- adequacy of the proposed means for protecting against adverse effects upon humans, vertebrate animals, or the environment.

The specific review criteria will vary with other types of applications

such as for the National Research Service Awards, Research Career Development Awards, and center or program project grants. These criteria are outlined in the DRG Handbook for Executive Secretaries.

(3) IRG Recommendations

The Chairperson of the IRG introduces each application, calls upon the individual assignees to read their written comments, and invites discussion. At an appropriate time, the Chairperson requests a motion on the application. The possible motions can be for approval, disapproval, or deferral.

Approval - the application is of sufficient merit to be worthy of support based on the review criteria. The vote for approval is equivalent to a recommendation that a grant be awarded provided sufficient funds are available. A priority rating is required.

Disapproval - the application is not of sufficient merit, or for other stated reasons, not worthy of support. Disapproval may also be recommended when hazardous or unethical procedures are involved, or when no funds can be recommended, such as in the case of a supplement deemed to be unnecessary. No priority rating is required.

Deferral - the IRG cannot make a recommendation without additional information or clarification of specific aspects of the application. The Executive Secretary notifies the applicant and takes the necessary steps to obtain any additional information. Deferred applications are not presented to Councils.

The Executive Secretary should try, normally by correspondence, to obtain the additional information to present at the next scheduled IRG meeting. However, if the required additional information can best be obtained only by discussion with the applicant or the Principal Investigator, a project site visit or telephone communication should be made.

The purpose, organization, and conduct of project site visits, the responsibilities of the Executive Secretary, site visitors, BID staff, and applicant investigator, and other relevant issues are described in the NIH Manual Chapter 4511 and in the DRG Handbook for Executive Secretaries.

After a motion of approval, disapproval, or deferral has been seconded, the Chairperson asks for any further discussion. If the motion is for approval, the budget is discussed. The budget recommendation, which can be for the time and amount requested or

for an adjusted time and/or amount, should include not only the first year but also each subsequent year.

The Chairperson or a member of the IRG then calls for a vote by the IRG on the motion. The recommendation of the IRG for each application is made by majority members voting on the motion.

(4) Split Vote

If two or more members disagree with the recommendation of the IRG, the dissenting members must prepare a written minority report for inclusion in the summary statement. A single dissenting member may prepare a minority report, if the member wishes to do so.

(5) Priority Score

For each application that has been recommended for approval, each regularly appointed member of the IRG records a numerical rating that reflects the member's opinion of the merit of the application.

The numerical rating ranges from 1.0 (the most meritorious) to 5.0 (the least meritorious) in 0.1 increments. A rating of 2.5 can be considered to represent average quality. In addition to the scientific and technical merit of the application, the priority rating pertains to the recommended budget and number of years of support.

If the vote for approval is not unanimous, reviewers who vote for disapproval must record a priority rating, which may be, but need not be, 5.0. If a reviewer voting for disapproval does not assign a priority rating, the Executive Secretary will record a rating of 5.0. If a reviewer elects to abstain, and so indicates on the voting work sheet, no priority will be assigned nor will the abstainer be counted in the number voting.

After the meeting, the Executive Secretary averages the individual ratings for each application and multiplies by 100 to provide three-digit priority scores between 100 and 500. Priority scores are included in the summary statements.

3. Summary Statements

Following the IRG review, the Executive Secretary prepares a summary statement for each application, documenting the salient features of the IRG's deliberations and recommendations. The summary statement, while not necessarily exhaustive, should be complete and represent a group evaluation of each application. It is important that objective factual information, carefully documented and well justified, be provided.

Pertinent material from the meeting discussions must be included. (See NIH Manual Chapter 4512 and the DRG Handbook for Executive Secretaries for instructions on preparation and distribution of summary statements.)

4. Applications from Foreign Institutions

IRGs review foreign applications without regard to the fact that they are foreign, and make recommendations and assign priority ratings exclusively on the basis of merit. Unique or specialized aspects of the application should receive comment in the summary statement.

5. Mail Reviews

The expertise available on an IRG may be supplemented by expert opinions obtained by mail. These supplementary mail opinions shall be made available to the entire IRG membership. In addition, in emergencies or under certain special circumstances, the entire review process may be carried out by a mail ballot. Such mail reviews should be supplemented with telephone conference calls when necessary. The principles used in selecting mail reviewers are the same as those for IRG members, including avoiding conflict of interest situations.

K. Communications, Rebuttal, and Appeal

The procedure for responding to communications from principal investigators varies according to where an application is in the peer review process. Detailed procedures for handling communications from applicant principal investigators are contained in NIH Manual Chapter 4516, Principal Investigator Generated Communications and Appeals to Referral and Peer Review of NIH Grant and Cooperative Agreement Applications.

L. Effective Date

This policy is effective on date of release.

M. Additional Information

For further information on this manual chapter, contact: Office of Extramural Research and Training, OD, 496-2241, or the Division of Research Grants, 496-7248.

N. Additional Copies

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